Vidya Vikas Mandal's
Shree Damodar College of Commerce & Economics, Margao-Goa
SY BCA Semester-IV Semester End Examination, April/May 2023
Data Communications (CAC-114)

Duration: 2 Hours   **Max Marks: 60**

Instructions: i) All Questions are compulsory
ii) Figures to the right indicate full marks

Q1.A) State TRUE or FALSE.   (5x1=05)

i) Transport Layer is associated with Logical Addresses.

ii) Standards that have been legislated by an officially recognized body are known as De facto.

iii) HTTPS is an Application Layer Protocol.

vi) In Baseline Wandering, the receiver calculates the running average of the received signal power which is called the baseline.

v) SNMP is a framework used for managing the devices on the internet by using the TCP/IP protocol suite.

Q1.B) Define the purpose of the following in not more than 20 words.   (5x1=05)

i) Message Nonrepudiation.

ii) Web Server.

iii) Attenuation.

vi) Remote Desktop Protocol.

v) SYN Flooding Attack.

Q.2) Answer the following.

a) Convert "0100110100" into digital signal using Differential Manchester line coding technique.   (2)

b) Explain Symmetric Key Encryption with a neat diagram.   (3)

c) Explain with a neat diagram the TCP Connection Termination using three way handshake protocol.   (5)

Q3) Answer the following.

a) Explain the process followed by the ARP Protocol.   (2)

b) Explain Radio Wave, Microwave and Infrared waves.   (3)

c) Describe the responsibilities of the Data Link Layer.   (5)

Q4) **Answer the following.**

a) Explain Digital Certificates. (2)

b) Given the following IP address, Calculate the last address in the block. (3)
- 17.12.14.48/28

c) Explain the five network topologies. (5)

Q5) **Answer the following.**

a) Explain Logical and Physical addresses. (2)

b) Describe the three types of Serial Transmission modes. (3)

c) Explain any five Quality of Service Parameters in Transport Layer. (5)

Q6) **Answer the following.**

a) Give four point of difference between WAN and MAN. (2)

b) Describe the three different domains of DNS. (3)

c) Explain the IPV4 Header Format with a neat diagram. (5)

---------------------------------- **ALL THE BEST** ----------------------------------